

Claim Amendments

1. (canceled) A catalyst for production of acrylic acid, which is obtained by a process including the steps of: heating a mixed liquid of starting materials including molybdenum and vanadium as essential components; and then molding the resultant dried material with a liquid binder; and then calcining the resultant molding;

wherein the liquid binder is an aqueous liquid of 7.0 to 10.0 in pH.

2. (canceled) A catalyst for production of acrylic acid according to claim 1, wherein the liquid binder is a binder including an ammonium radical.

3. (canceled) A catalyst for production of acrylic acid according to claim 1, which is supported on a particulate carrier.

4. (currently amended) A process for production of acrylic acid, which comprises the step of carrying out catalytic gas phase oxidation of acrolein in the presence of molecular oxygen, thereby producing the acrylic acid;

~~with the process using the catalyst for production of acrylic acid according to claim 1 with the step of carrying out catalytic gas phase oxidation using a catalyst which is obtained by a process that includes the steps of: heating a mixed liquid of starting materials including molybdenum and vanadium as essential components; and then molding the resultant dried material with a liquid binder; and then calcining the resultant molding; wherein the liquid binder is an aqueous liquid of 7.0 to 10.0 in pH.~~

5. (new) A process for production of acrylic acid according to claim 4, wherein the liquid binder is an aqueous liquid of 7.5 to 9.5 in pH.

6. (new) A process for production of acrylic acid according to claim 4, wherein a physical strength of the catalyst is 98.6 mass % or more.

7. (new) A process for production of acrylic acid according to claim 6, wherein the physical strength of the catalyst is measured in accordance with the following procedure:

a) providing a stainless-steel-made reaction tube of 25 mm in inner diameter and 5,000 mm in length and setting said stainless-steel-made reaction tube in a vertical direction;

b) closing a lower end of said stainless-steel-made reaction tube with a stainless-steel-made receiving plate of 1 mm in thickness;

c) dropping 50 g of the catalyst from an upper end of the stainless-steel-made reaction tube into the stainless-steel-made reaction tube;

d) removing the stainless-steel-made receiving plate, having the catalyst that has been dropped, from the stainless-steel-made reaction tube such that the catalyst is gently extracted from the stainless-steel-made reaction tube;

e) sieving the catalyst that has been extracted with a sieve having a mesh opening size of 4 mm; and

f) wherein the physical strength (mass %) of the catalyst equals [(mass of catalyst remaining on sieve)/(mass of catalyst as dropped from the upper end of the stainless-steel-made reaction tube)] X 100.